Key updates and foreward look EMODnet Chemistry

18th EMODnet Steering Committee
23 May 2023

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Chemistry lot

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The European Marine Observation and Data Network (EMODnet) is financed by the European Union under Regulation (EU) 2021/1139 of the European Parliament and of the Council of 7 July 2021 establishing the European Maritime, Fisheries and Aquaculture Fund and its predecessor, Regulation (EU) No. 508/2014 of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund.

Progress against project planning: data collection & products generation

EMODnet Chemistry 5 contract started on 03/10/2021 (now M19) and will be continued

WP	ACTIVITY DESCRIPTION	YEAR 1												YEAR 2											
	TIME FRAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2	**Chemistry data collection and metadata compilation and arranging common access**																								
2.1	Review guidelines and Training Activity																								
2.2	Chemistry data gathering and metadata population																								
	Focus on eutrophication data																								
	Focus on contaminants data																								
	Focus on micro litter data																								
2.3	Formulating formats and vocabularies for marine litter and data gathering																								
2.4	Nutrients loads from major rivers																								

WP	ACTIVITY DESCRIPTION	YEAR 1												YEAR 2											
	TIME FRAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
3	**Generation of data products, including collections**																								
3.1	Generating harmonised, aggregated and validated data collections																								
	Focus on eutrophication data collections																								
	Focus on contaminants data collections																								
	Focus on micro litter data collections																								
	Focus on beach and seafloor litter collections																								
3.2	Generating DIVA maps of eutrophication																								
3.3	Higher resolution maps at river mouths																								
3.4	Tuning data collection and dedicated maps on contaminants																								
3.5	Generating validated data collections and maps of marine litter																								

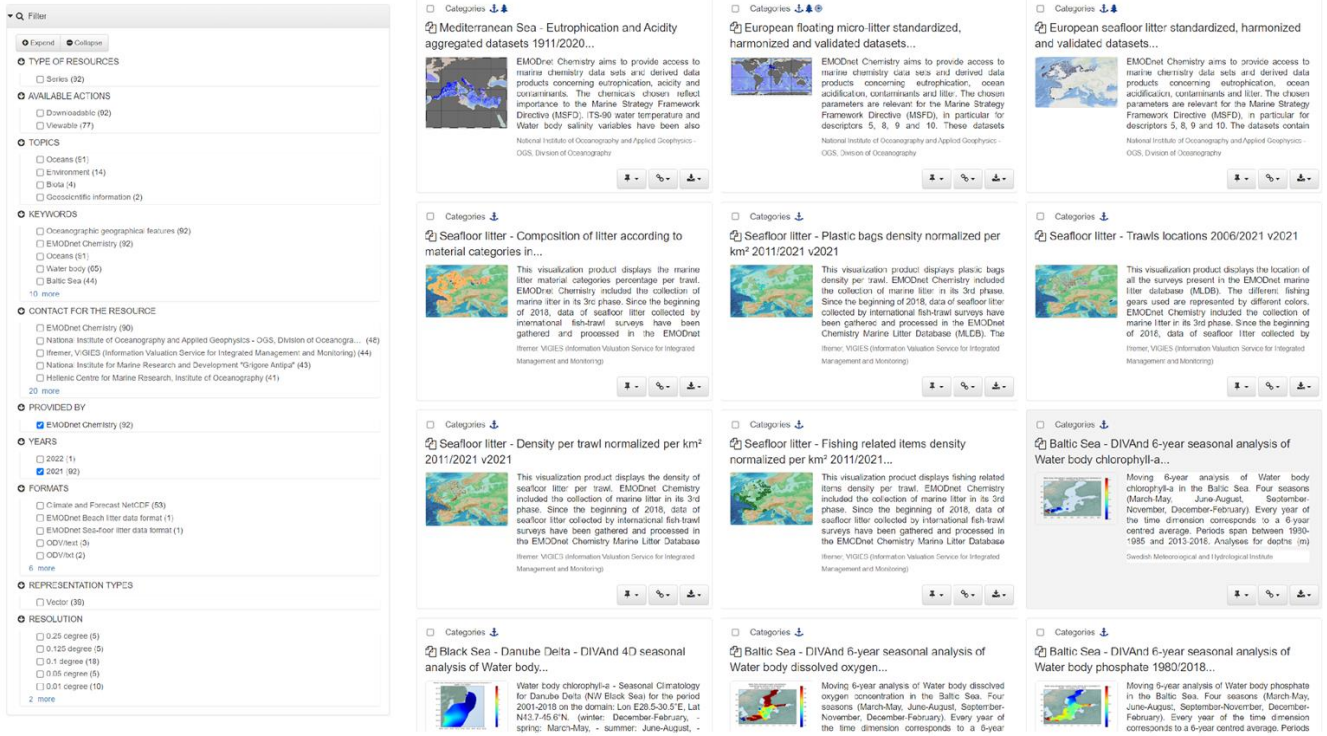
Progress against project planning: technical dev. & outreach

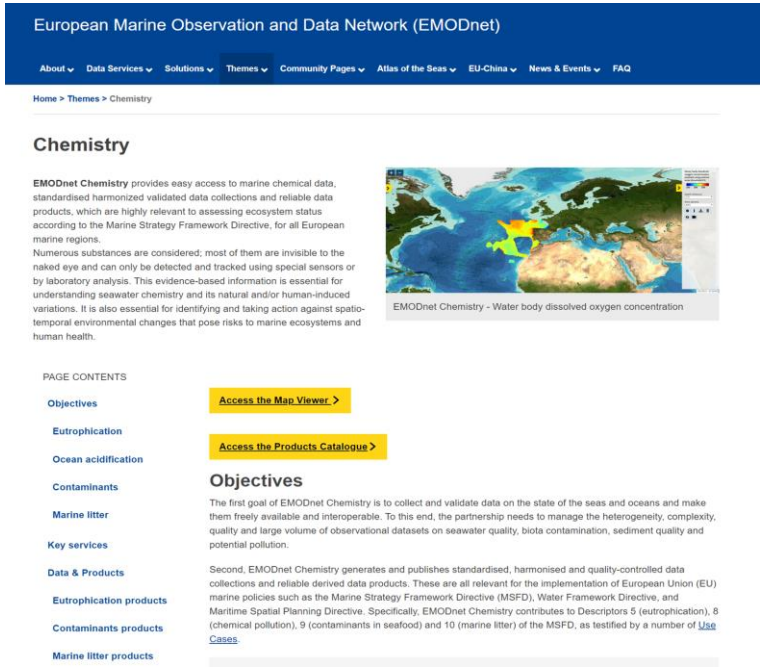
WP	ACTIVITY DESCRIPTION	YEAR 1												YEAR 2											
	TIME FRAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
4	**Technical development for interoperability, services and tools**																								
4.1	Transforming the functionality of existing portal services into machine-to-machine services and contributing to their deployment in Central portal																								
4.2	Further developing the EMODnet marine litter database																								
4.3	Improving the advanced viewing services																								
4.4	Streamline gneration and publishing of contaminants maps																								
4.5	Operation and monitoring of well functioning of services and gathering KPI																								

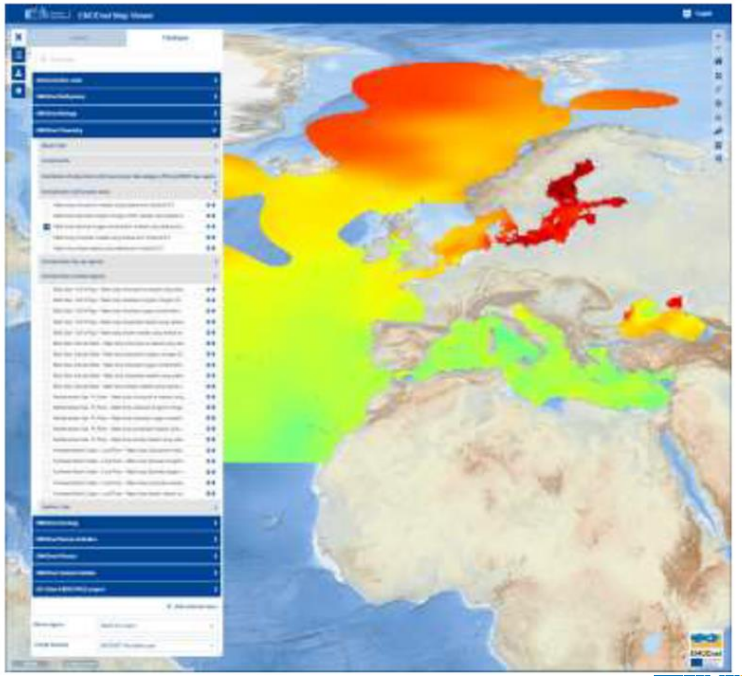
WP	ACTIVITY DESCRIPTION	YEAR 1												YEAR 2											
	TIME FRAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5	**Uptake, outreach and interaction**																								
5.1	Maintain and operate a Help service																								
5.2	Interaction and regular dialogue with MSFD stakeholders																								
5.3	Maintain international cooperation and interoperability																								

Migration actions

- Chemistry narrative
- Content transferring to CP Reports catalogue
- Amended URLs of external services
- Metadata entries for all Chemistry products in Sextant Catalogue
- Inclusion of Chemistry products in the CP Catalogue by CSW harvesting
- Adoption of OGC services for all map layers

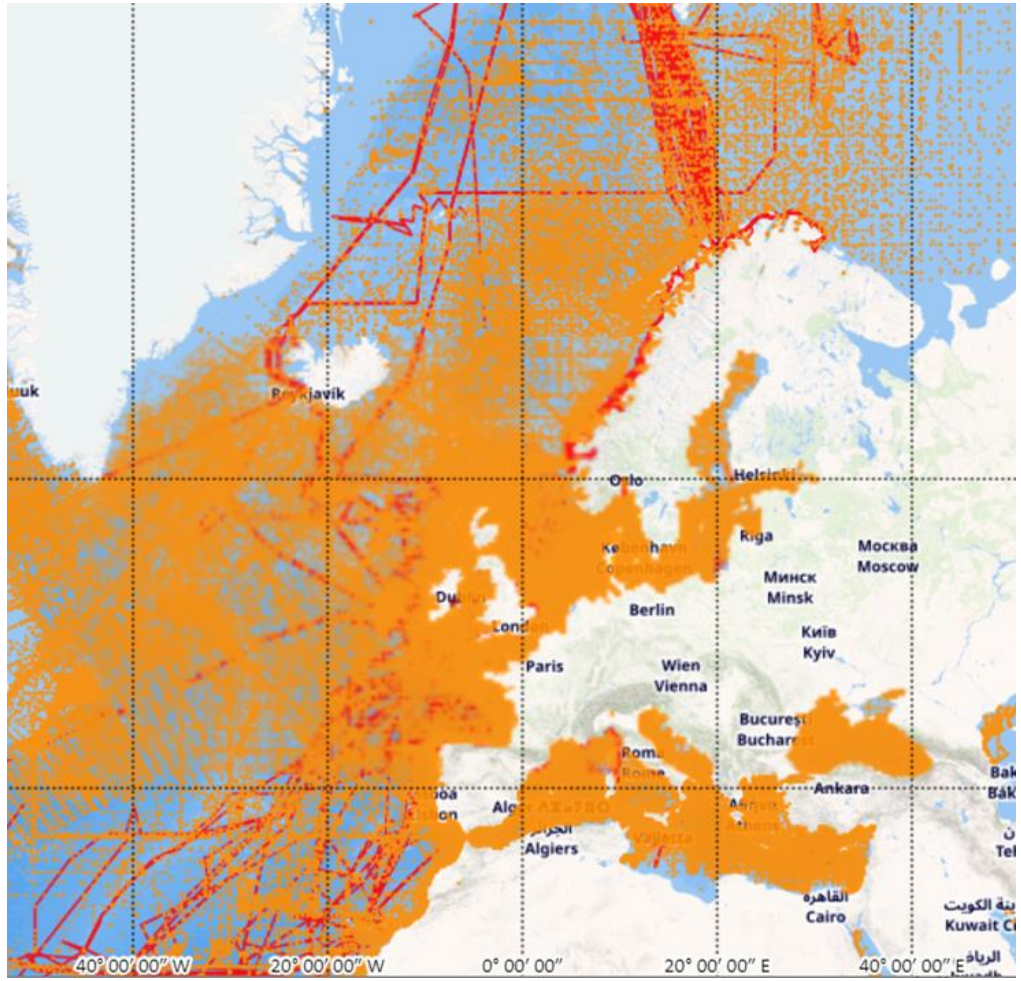






Progress on data and geographic coverage – May 2023

- Steady increase in the datasets supplied by the network of 66 data centers mobilized by EMODnet Chemistry
- Further enriching or amending data and metadata already available



- **CDI records and data sets:**
  June 2014: **661095;**
  June 2016: **807959**;
  Feb 2018**: 939400;**
  June 2020**: 1010933;**
  Apr 2021: **1051948;**
  September 2021: **1122527;**
  April 2022: **1147589;**
  October 2022: **1191652**
  May 2023: 1230681

- **66** Data Centres
- **32** Countries
- **581** Originators
- **1868 – 2023** years
- **90.38%** unrestricted
- **9.62%** to be negotiated

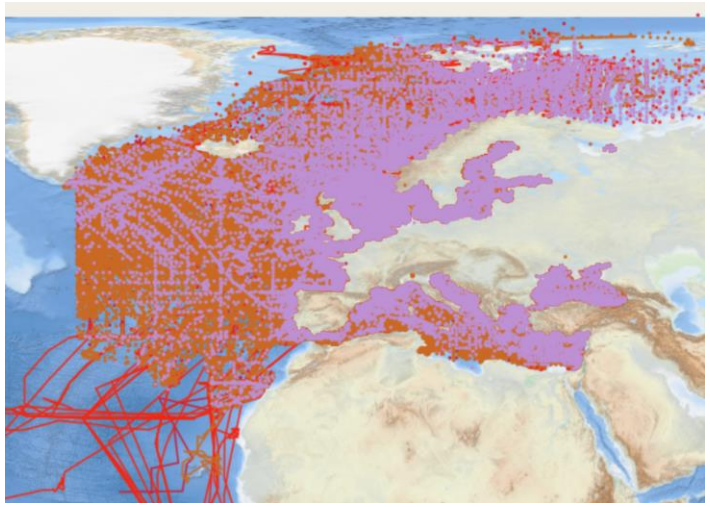
- Increase 3,3 %
- + 39,029 CDI datasets
- + 31 originators

Data and geographic coverage

Very good progress in data gathering for Eutrophication, Contaminants, and Marine Litter

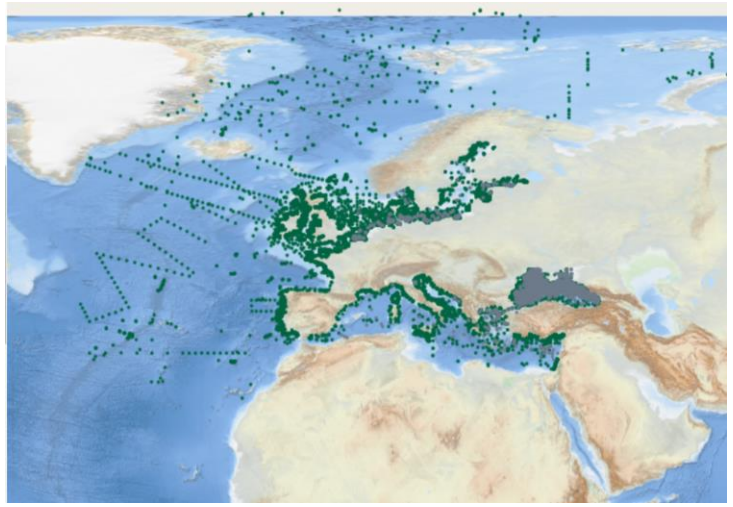
Europhication CDI = 1068855

Per Parameter group	Datasets
Dissolved gasses	791762
Fertilisers	542195
Silicates	398279
Chlorophyll	371456
Acidity	195815
Organic matter	68719



Contaminants CDI = 125478

Per Parameter group	Datasets
Hydrocarbons	80225
Heavy metals	62073
Antifoulants	6338
Pesticides and biocides	37616
Polychlorinated biphenyls	23046
Radionuclides	3273
Pharmaceuticals	116



Marine litter: 43344

Per Parameter group	Datasets
Beach litter	15391

Per Parameter group	Datasets
Seafloor litter	26195

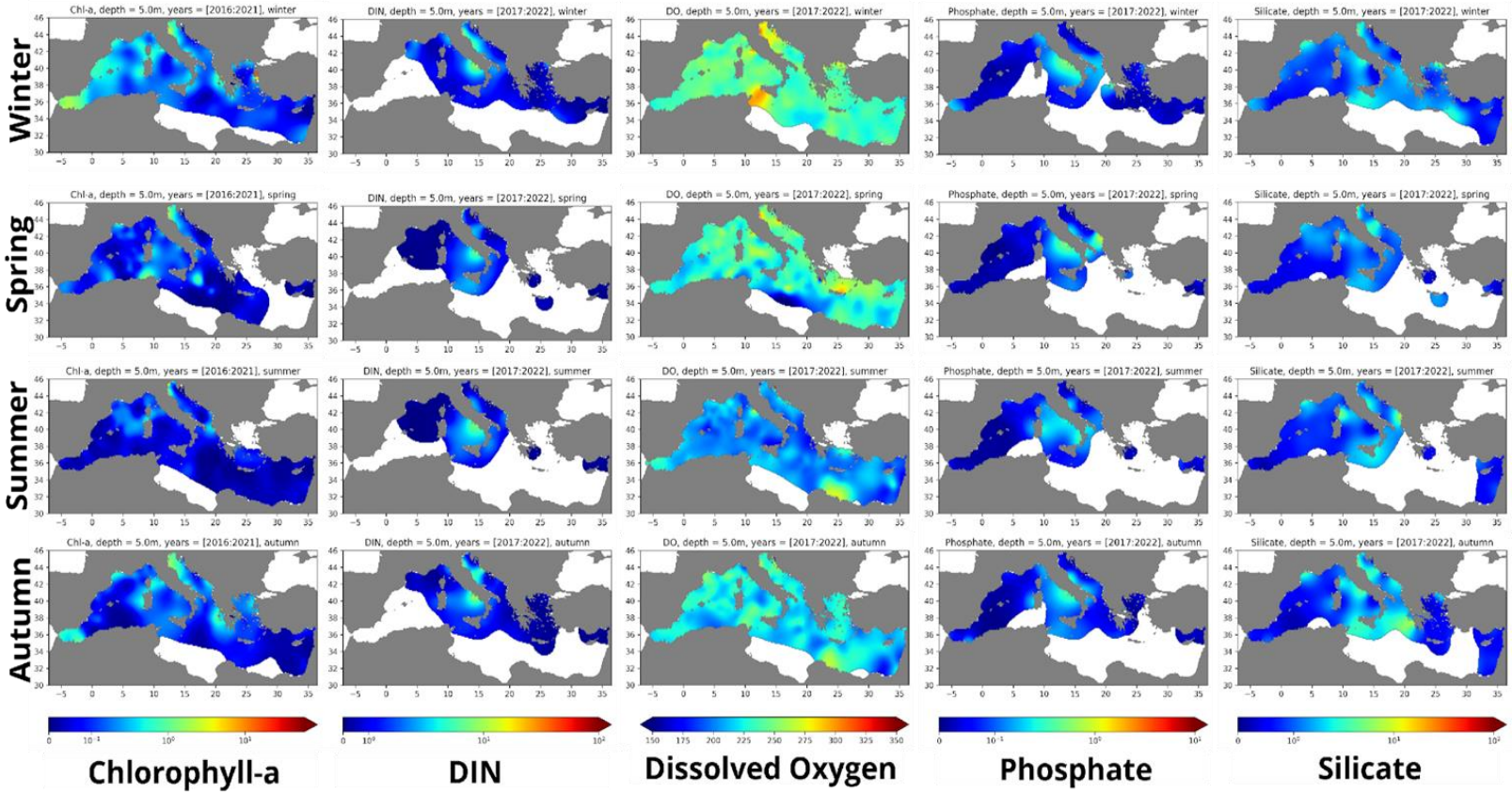
Per Parameter group	Datasets
Microlitter	1758

MODnet

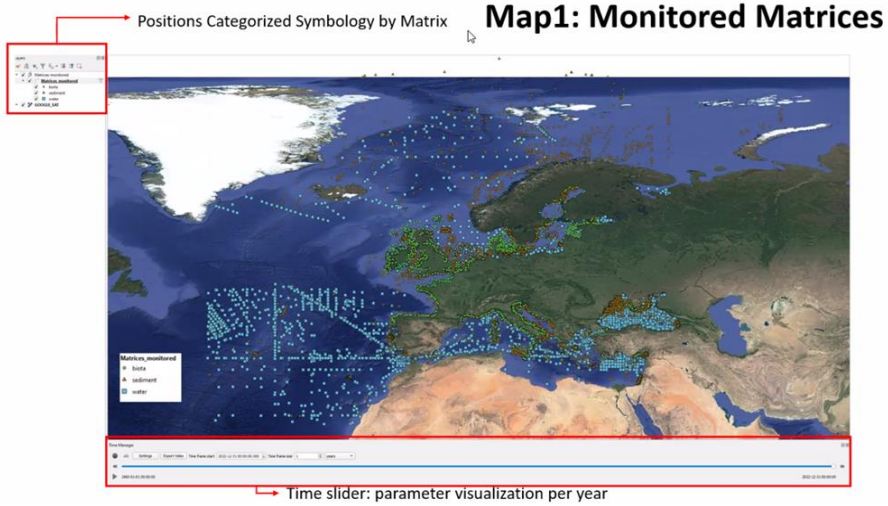
New maps

- Examples for Eutrophication

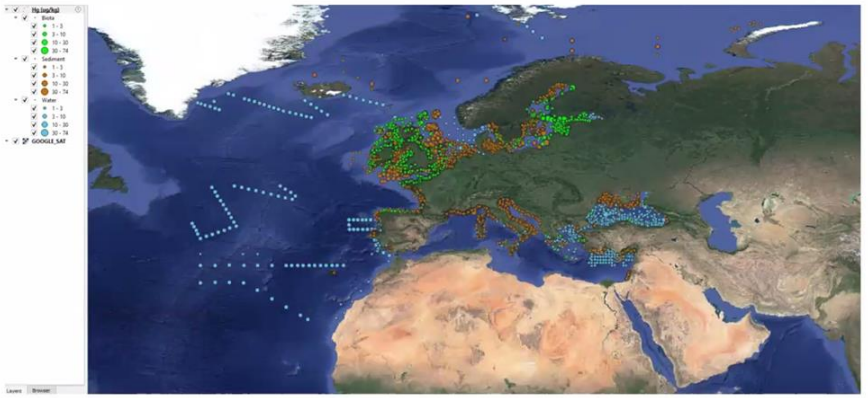
DIVAnd gridded fields – Mediterranean Sea
seasonal spatial distributions, 5m depth
last available 6-yr periods (2017-2022, 2016-2021)
masked fields (data gaps)



- Examples for Contaminants



Map2: Mercury



International cooperation

©juicy fish on Freepik

Marine In situ Collaboration (MIC) Technical Working Group

Copernicus Marine Service

SeaDataNet

EuroGOOS European Global Ocean Observing System

UN Global Partnership on Marine Litter Digital Platform and Global ML and Plastic Pollution Ontology peer review process

GPML

MoU with UNEP

MoU with EURO Argo ERIC

Euro Argo

International Experts on Marine Plastic Litter Monitoring Data Sharing Project, MOEJ

環境省 Ministry of the Environment

- Microlitter data management prototype
- Japan, Sept/Oct 2023 - workshop with global stakeholders

Alignment to facilitate contaminants data reporting

WISE WATER INFORMATION SYSTEM FOR EUROPE

HELCOM

OSPAR COMMISSION

UNEP MAP

nprman

Repository for MSFD Contaminants (in progress) and Marine litter (consolidated collaboration)

JRC EUROPEAN COMMISSION

EUROqCHARM

EURO CHARM

- April 2023 - Global event to foster database synchronization
- Oct 2023 - Data reporting as a tool for policy: EMODnet

Marine litter data

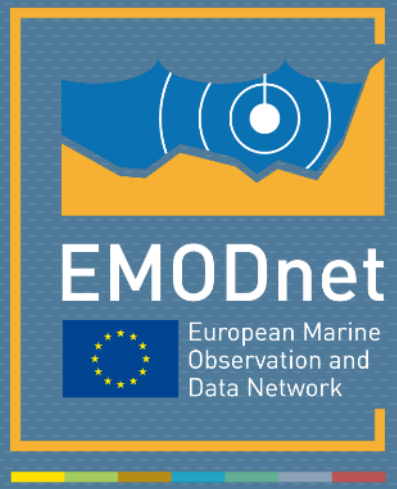
HELCOM

OSPAR COMMISSION

ICES CIEM

Priority actions for next six months (2')

- Finalize publication of data collections and data products
- Meeting with MSFD experts on contaminants and litter
- Revision of KPI (2.B - Usage of data products)
- Centralization, remaining wishes:
  i. Improving colour ranges and legend for DIVA gridded maps
  ii. Direct links from Product records to CP Map Viewer folders
  iii. Direct download from Product records on the top (now Distribution)
  iv. Information about CP KPIs
- Continue to support JRC and EU TGs in providing harmonised and validated data.
  To this end, confirming EMODnet's role in collecting MSFD monitoring data would facilitate the mechanism for obtaining data from Member States.



emodnet.ec.europa.eu

Your gateway to marine data in Europe

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